15

20

5

WHAT IS CLAIMED IS:

1. A system for identifying an electrical short in a flowing electrolyte battery wherein the system comprises:

-means associated with the flowing electrolyte battery for detecting direction of current flow through a battery, wherein the flow of current in a first direction is indicative of proper current flow and the flow of current in a second direction is indicative of an electrical short within at least a portion of the battery; and

-means for ceasing current flow upon detection of current flow in the second direction.

- 2. The system according to claim 1 wherein the flow detection means includes a device capable of sensing an electro-magnetic field associated with at least a portion of the battery.
- 3. The system according to claim 2 wherein the flow detection means is associated with at least one electrical conduit associated with the flowing electrical battery.
- 4. The system according to claim 3 wherein the electrical conduit comprises a wire or cable.
- 5. The system according to claim 2 wherein the flow detection means includes a ring sensor.

20

- 6. The system according to claim 1, wherein the flow detection means is associated with an electrical conduit.
- 7. The system according to claim 1 wherein the flow detection means includes at least one of a digital or analogue sensor.
- 8. The invention according to claim 1 wherein the system further includes means for identifying the direction of current flow.
- 9. The system according to claim 1 wherein the identifying means includes an audible signal upon detection by the detecting means of the flow of current in the second direction.
- 10. The system according to claim 1 wherein the identifying means includes a visual signal upon detection by the detecting means of the flow of current in the second direction.
- 11. The system according to claim 1 wherein the identifying means includes an audible signal and a visual signal upon detection by the detecting means of the flow of current in the second direction.
- 12. The system according to claim 1 whereby the means for ceasing the flow of electric current comprises at least one of an electrical, electro-mechanical or mechanical switch.

15

20

5

system comprises:

-means associated with the flowing electrolyte battery for detecting direction of current flow through a battery, wherein the flow of current in a first direction is indicative of proper current flow and the flow of current in a second direction is indicative of an electrical short within at least a portion of the battery;

-means for ceasing current flow upon detection of current flow in the second direction; and

-means for identifying the direction of current flow.

- 14. The system according to claim 13 wherein the flow detection means includes a device capable of sensing an electro-magnetic field associated with at least a portion of the battery.
- 15. The system according to claim 14 wherein the flow detection means is associated with at least one electrical conduit associated with the flowing electrical battery.
- 16. The system according to claim 15 wherein the electrical conduit comprises a wire or cable.
- 17. The system according to claim 14 wherein the flow detection means includes a ring sensor.

- 5
- 15

- 18. The system according to claim 13, wherein the flow detection means is associated with an electrical conduit.
- 19. The system according to claim 13 wherein the flow detection means includes at least one of a digital or analogue sensor.
- 20. The system according to claim 13 wherein the identifying means includes an audible signal upon detection by the detecting means of the flow of current in the second direction.
- 21. The system according to claim 13 wherein the identifying means includes a visual signal upon detection by the detecting means of the flow of current in the second direction.
- 22. The system according to claim 13 wherein the identifying means includes an audible signal and a visual signal upon detection by the detecting means of the flow of current in the second direction.
- 23. The system according to claim 13 whereby the means for ceasing the flow of electric current comprises at least one of an electrical, electro-mechanical or mechanical switch.